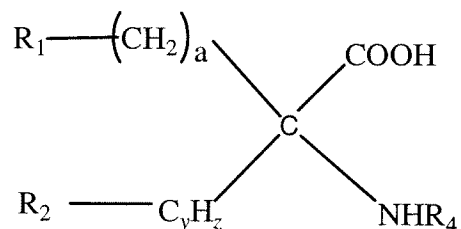


Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

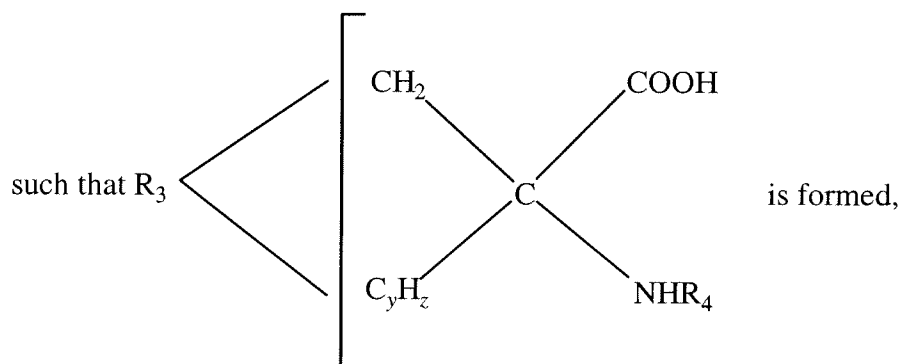
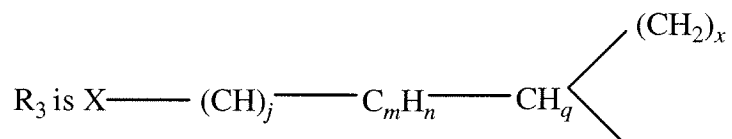
Listing of Claims:

1. (currently amended) An amino acid analog having the general structure



where R_1 is X, $\text{X} - \text{HC} = \text{CH} -$, or R_3

R_2 is H, or R_3 if R_1 is R_3 .



R_4 is CH_{3-} , $-(\text{C}_k\text{H}_{2k+1})$, $-(\text{C}_k\text{H}_{2k-1})$ or $-(\text{C}_k\text{H}_{2k-3})$ where $k = 2-5$

And where a is 1 to 5,

x is 0 or 1,

y is 1 or 2,

z is 1, 2, 3 or 4 and $z > y$ if y is 2,
q is 1 or 0 if n is 1 and j is 0,
n is 1 or 2, but 0 if m is 0,
m is 0 or 1
j is 0, 1, 2 or 3
~~k is 1-5~~ and
X is ^{18}F , ^{123}I , ^{124}I , ^{125}I , ^{131}I , ^{75}Br , ^{76}Br , ^{77}Br , ^{82}Br , or At

2. (Original) The compound of claim 1, wherein R_1 and R_2 are R_3 .
3. (Original) The compound of claim 1, wherein x is 0
y is 1
z is 2
q is 1
m is 0 and j is 0.
4. (Original) The compound of Claim 3, wherein X is ^{18}F or ^{123}I .
5. (Original) The compound of Claim 3, wherein X is ^{18}F .
6. (Original) The compound of Claim 1, wherein R_1 and R_2 are R_3 ,
x is 0 or 1
y is 2
z is 4
q is 1
m and j are 0 and X is ^{18}F or ^{123}I .
7. (Original) The compound of claim 6, wherein x is 1 and X is ^{18}F .
8. (Original) The compound of Claim 6, wherein x is 0 and X is ^{123}I .

9. (Original) The compound of Claim 6, wherein x is 1 and X is ^{123}I .
10. (Original) The compound of Claim 1, wherein R1 and R2 are R3,
x is 0
y is 1
z is 2
q is 0
m is 1
n is 1
j is 0 and X is ^{18}F or ^{123}I .
11. (Original) The compound of claim 10, wherein X is ^{18}F .
12. (Original) A compound according to claim 1 wherein R₁ and R₂ are R₃,
x is 1
y is 1
z is 1
q is 0
m and j are 0, and
X is ^{18}F or ^{123}I .
13. (Original) A compound according to claim 12 wherein X is ^{123}I .
14. (Original) A compound according to claim 1 wherein R1 and R2 are R₃,
x is 0
y is 1
z is 2
q is 1
m is 1

n is 1
j is 1, and
X is ^{18}F , or ^{123}I .

15. (Original) The compound of claim 14 wherein X is ^{123}I .

16. (Original) A compound according to claim 1 wherein R_1 and R_2 are R_3 ,
x is 0
y is 1
z is 2
q is 0
m is 0
j is 1, and
X is ^{18}F , or ^{123}I .

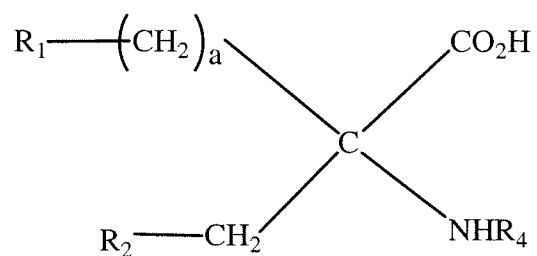
17. (Original) The compound of claim 16 wherein X is ^{123}I .

18. (Original) A compound according to claim 1 wherein R_1 and R_2 are R_3 ,
x is 0 or 1
y is 2
z is 4
q is 1
m is 1
n is 1
j is 1, and
X is ^{18}F , or ^{123}I .

19. (Original) The compound of claim 18 wherein X is ^{18}F .

20. (Original) The compound of claim 18 wherein X is ^{123}I .

21. (Original) A compound according to claim 1, wherein R_1 and R_2 are R_3 ,
x is 0 or 1
y is 2
z is 4
q is 0
m is 0
j is 1, and
X is ^{18}F , or ^{123}I .
22. (Original) The compound of claim 21 wherein X is ^{18}F .
23. (Original) The compound of claim 21 wherein X is ^{123}I .
24. (Original) A compound of claim 1 wherein R_1 and R_2 are not R_3 .
25. (Original) A compound according to claim 24 wherein X is ^{18}F .
26. (Original) A compound according to claim 1 wherein R_1 is X-CH=CH- ,
 R_2 is H, y is 1 and z is 2.
27. (Original) The compound of claim 26 wherein X is ^{123}I .
- 28-44. Canceled
45. (Original) The compound of claim 1, wherein R_1 is ^{18}F , R_2 is H, y is 1, z is 2, and
 R_4 is $-\text{CH}_3$.
46. (withdrawn) An amino acid analog having the general structure



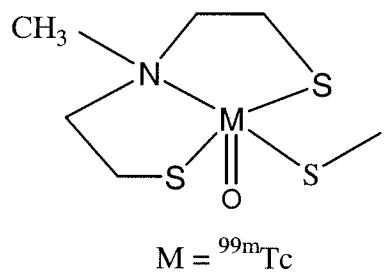
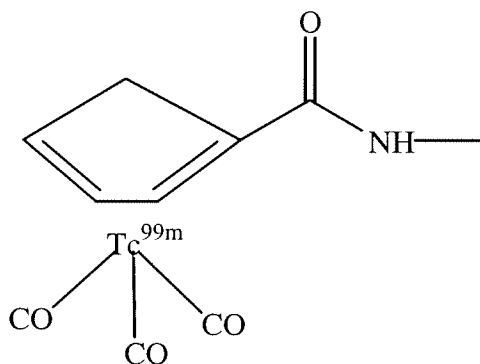
where R_1 is Z, a is 1 to 5,

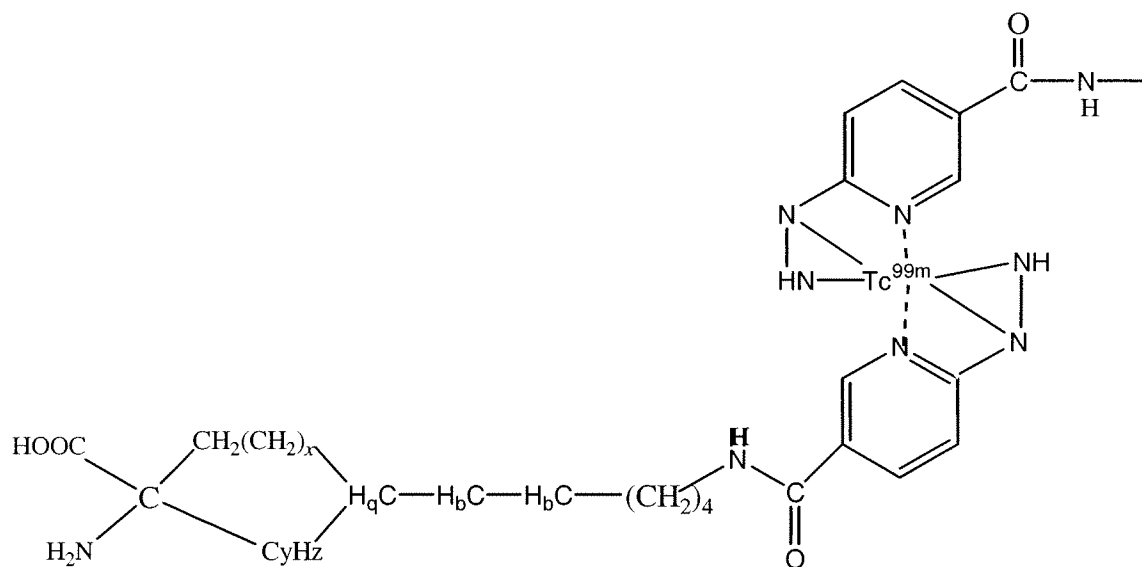
R_4 is $-(\text{C}_k\text{H}_{2k+1})$, $-(\text{C}_k\text{H}_{2k-1})$ or $-(\text{C}_k\text{H}_{2k-3})$, and

R_2 is $-(\text{C}_k\text{H}_{2k+1})$, $-(\text{C}_k\text{H}_{2k-1})$, or $-(\text{C}_k\text{H}_{2k-3})$

k is 1-5.

Z is





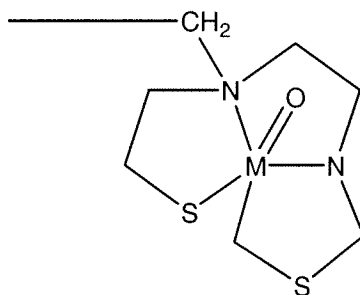
where b is 0, 1 or 2

x is 0 or 1

y is 1 or 2

z is 1, 2, 3, or 4 and $z > y$ if y is 2,

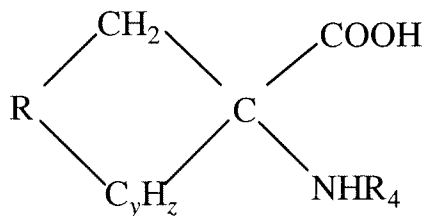
q is 0 or 1



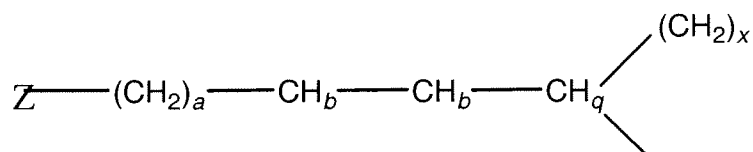
M = Tc or Re

47. (Original) A method of in situ tumor imaging by positron emission tomography comprising:
administering to a subject suspected of having a tumor an image-generating amount of a compound according to claim 1, and measuring the distribution of the compound in the subject by positron emission tomography.

48. (withdrawn) An amino acid analog having the general structure



where R is



where a is 1, 2 or 3

b is 0, 1 or 2

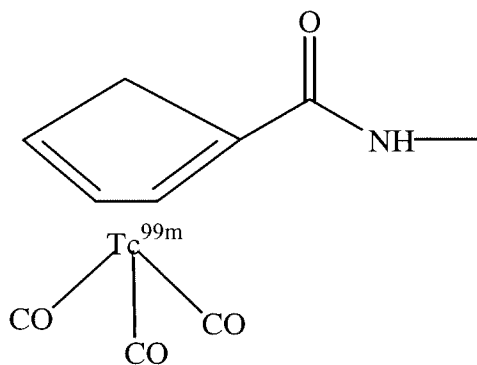
x is 0 or 1

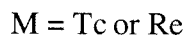
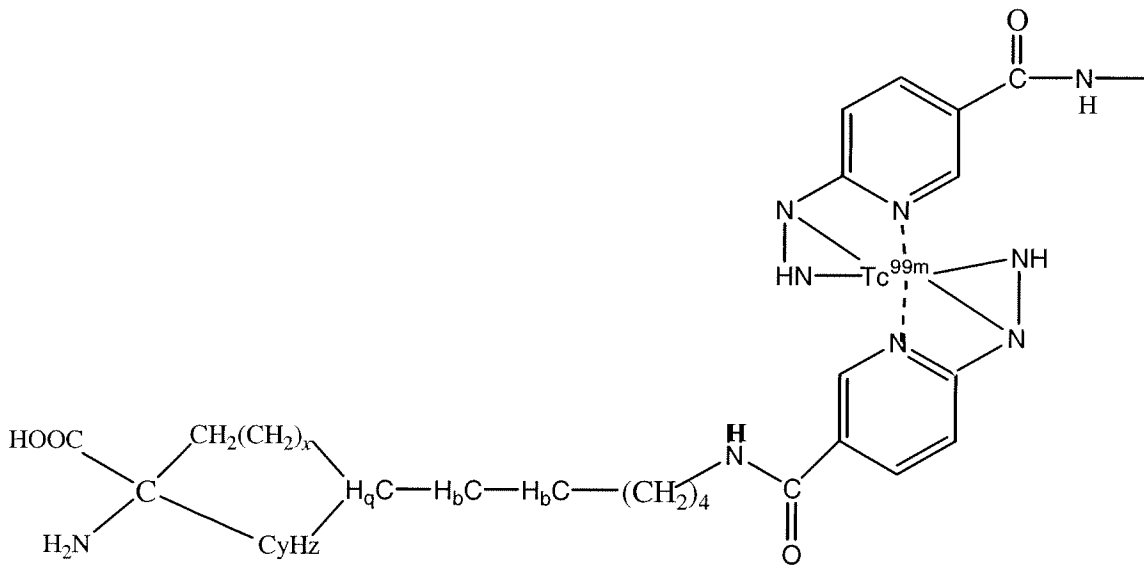
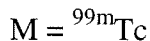
y is 1 or 2

z is 1, 2, 3 or 4 and $z > y$ if y is 2,

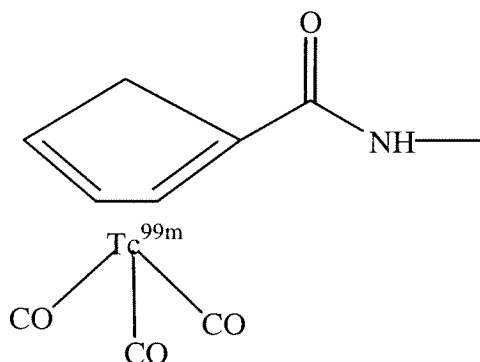
q is 1 or 0

R_4 is $-(C_kH_{2k+1})$, $-(C_kH_{2k-1})$ or $-(C_kH_{2k-3})$, and Z is

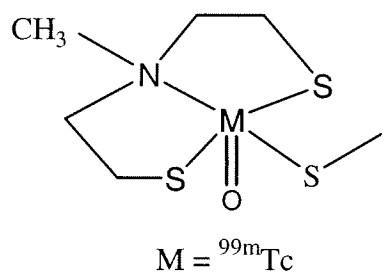




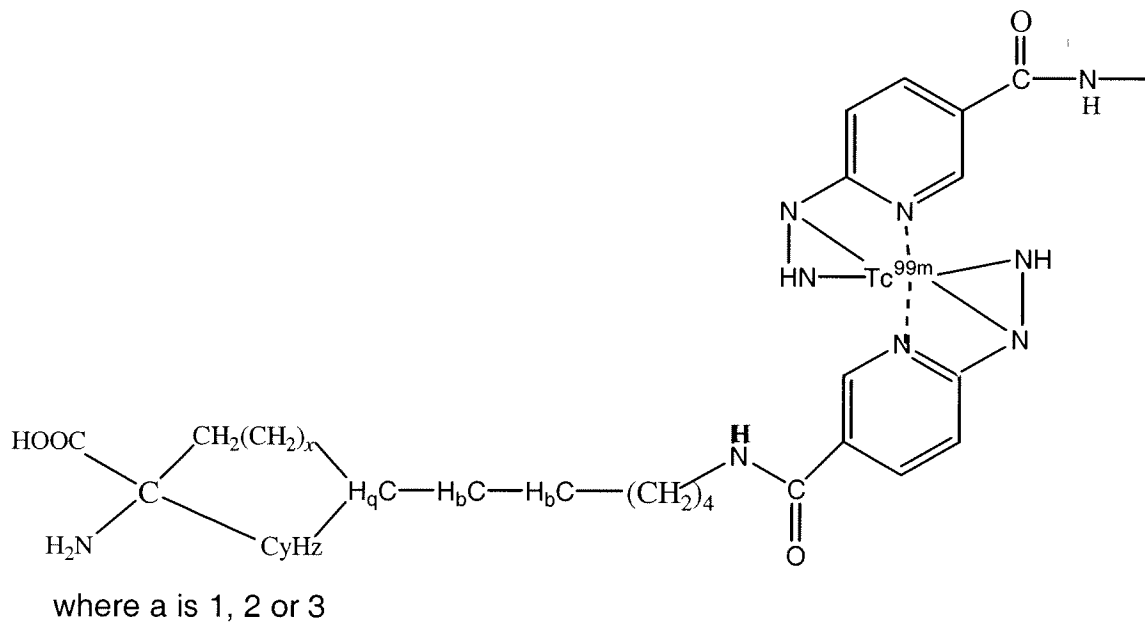
49. (withdrawn) The compound of claim 48 wherein Z is



50. (withdrawn) The compound of claim 48 wherein Z is



51. (withdrawn) The compound of claim 48 wherein Z is



b is 0, 1 or 2

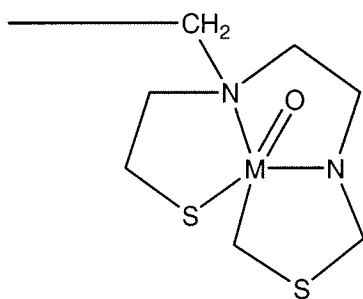
x is 0 or 1

y is 1 or 2

z is 1, 2, 3 or 4 and $z > y$ if y is 2,

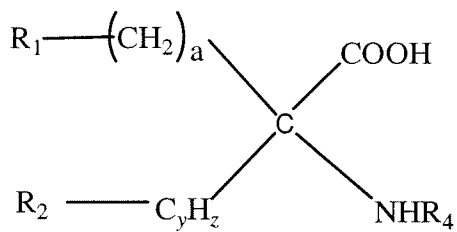
q is 1 or 0

52. (withdrawn) The compound of claim 48 wherein Z is



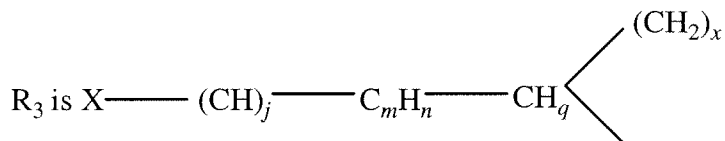
M = Tc or Re

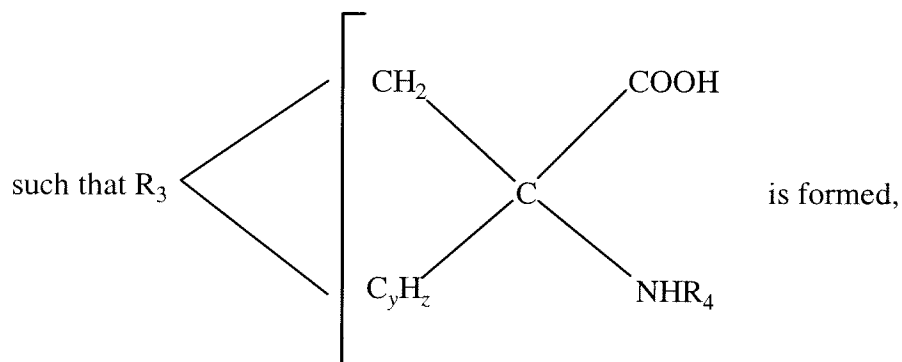
53. (new) An amino acid analog having the general structure



where R_1 is X, $X-CH=CH-$, or R_3

R_2 is H, or R_3 if R_1 is R_3 .





where R_4 is $-(C_kH_{2k+1})$ where k is 3-5, and where R_4 is $-(C_kH_{2k-1})$ or $-(C_kH_{2k-3})$

where $k = 2-5$

and where

a is 1 to 5,

x is 0 or 1,

y is 1 or 2,

z is 1, 2, 3 or 4 and $z > y$ if y is 2,

q is 1 or 0 if n is 1 and j is 0,

n is 1 or 2, but 0 if m is 0,

m is 0 or 1

j is 0, 1, 2 or 3 and

X is ^{18}F , ^{123}I , ^{124}I , ^{125}I , ^{131}I , ^{75}Br , ^{76}Br , ^{77}Br , ^{82}Br , or At .